

IN THE CLAIMS:

1. (Currently Amended) A method for ~~the treatment of~~ treating ocular neovascularization in an eye of an individual afflicted with ocular neovascularization, comprising:

~~effecting an increase in the amount of an~~ directly administering to the eye
a viral vector that operably encodes and expresses a functionally active endostatin in
~~ocular tissues of an individual afflicted with ocular neovascularization to an ocular~~
~~neovascularization-inhibiting effective amount~~ wherein said expressed endostatin
ameliorates ocular neovascularization.

2. (Currently Amended) The method of claim 1, wherein the endostatin is a polypeptide with the amino acid sequence set forth in SEQ ID NO:1.

3. (Currently Amended) The method of claim 1, wherein the endostatin is a functionally active polypeptide fragment of the polypeptide with the amino acid sequence set forth in SEQ ID NO:1, a functionally active derivative of the polypeptide with the amino acid sequence set forth in SEQ ID NO:1, or a functionally active variant of the polypeptide with the amino acid sequence set forth in SEQ ID NO:1.

4. (Cancel) ~~The method of claim 1, wherein the increase is effected by administering an exogenous endostatin to the individual.~~

5. (Cancel) ~~The method of claim 1, wherein the increase is effected by causing an endostatin to be produced within the individual.~~

6. (Cancel) ~~The method of claim 1, wherein the increase is effected by administering an effective amount of a viral vector comprising an endostatin-encoding nucleic acid to the individual.~~

7. (Currently Amended) The method of claim 6~~1~~, wherein the viral vector is obtained from a virus selected from the group consisting of an adenovirus, an adeno-associated virus, a retrovirus, and a lentivirus.

8. (Currently Amended) The method of claim 7, wherein the viral vector is obtained from an adenovirus ~~adenoviral~~ vector.

9. (Cancel) ~~The method of claim 1, wherein the increase is effected by implanting within the individual at least one microcapsule, wherein the microcapsule comprises cells that secrete endostatin.~~

10. (Cancel) ~~The method of claim 9, wherein the microcapsule comprises an alginate salt.~~

11. (Cancel) ~~The method of claim 10, wherein the microcapsule comprises sodium alginate.~~

12. (Cancel) ~~The method of claim 1, wherein the microcapsule comprises calcium alginate.~~

13. (Cancel) ~~The method of claim 12, wherein the microcapsule comprises poly L-lysine.~~

14. (Cancel) ~~The method of claim 9, wherein the cells comprise an exogenous endostatin-encoding nucleic acid.~~

15. (Cancel) ~~The method of claim 9, wherein the cells overexpress an endogenous endostatin-encoding gene.~~

16. (Cancel) ~~The method of claim 4, wherein between about 2.5 mg/kg per day and about 20 mg/kg per day of endostatin is administered to the individual.~~

17. (Cancel) ~~The method of claim 8 43 wherein the adenoviral vector is administered in an amount effective to provide for expression of endostatin by the individual to result in a concentration of endostatin of up to 1,000,000 ng/ml in the serum of the individual.~~

18. (Cancel) ~~The method of claim 8 43 wherein the adenoviral vector is administered in an amount effective to provide for expression of endostatin by the individual to result in a concentration of endostatin of at least about 300 ng/ml in the serum of the individual.~~

19. (Cancel) ~~The method of claim 18 wherein endostatin is expressed in the individual in a sufficient amount to result in a concentration of endostatin of about 300 ng/ml to about 3000 ng/ml in the serum of the individual.~~

20. (Cancel) ~~The method of claim 19, wherein endostatin is expressed in the individual in a sufficient amount to result in a concentration of endostatin of about 300 ng/ml to about 1500 ng/ml in the serum of the individual.~~

21. (Cancel) ~~The method of claim 61, wherein the vector is administered in an amount of from about 10^8 plaque forming units to about 10^{14} plaque forming units.~~

22. (Cancel) ~~The method of claim 8, wherein the vector is administered in an amount of from about 10^8 plaque forming units to about 10^{14} plaque forming units.~~

23. (Cancel) ~~The method of claim 9 wherein microcapsules are implanted in an amount effective to provide for expression of endostatin by the cells in a concentration of endostatin of up to 1,000,000 ng/ml in the serum of the individual.~~

24. (Cancel) ~~The method of claim 8 wherein microcapsules are implanted in an amount effective to provide for expression of endostatin by the individual to result in a concentration of endostatin of at least about 300 ng/ml in the serum of the individual.~~

25. (Cancel) ~~The method of claim 18 wherein the microcapsules are implanted in the individual in a sufficient amount to result in a concentration of endostatin of about 300 ng/ml to about 3000 ng/ml in the serum of the individual.~~

26. (Cancel) ~~The method of claim 19, wherein microcapsules are implanted in the individual in a sufficient amount to result in a concentration of endostatin of about 300 ng/ml to about 1500 ng/ml in the serum of the individual.~~

27. (Currently Amended) The method of claim 61, wherein endostatin-encoding nucleic acid has the sequence set forth in SEQ ID NO:2.

28. (Currently Amended) A The method according to any one of claim 1 wherein the ocular neovascularization is caused by a member selected from the group consisting of macular degeneration, histoplasmosis, pathological myopia, angioid streaks, anterior ischemic optic neuropathy, bacterial endocarditis, Best's disease, birdshot retinochoroidopathy, choroidal hemangioma, choroidal nevi, choroidal nonperfusion, choroidal osteomas, choroidal rupture, choroideremia, chronic retinal detachment, coloboma of the retina, Drusen, endogenous Candida endophthalmitis, extrapapillary hamartomas of the retinal pigmented epithelium, fundus flavimaculatus, idiopathic, macular hole, malignant melanoma, membranoproliferative glomerulonephritis (type II), metallic intraocular foreign body, morning glory disc syndrome, multiple evanescent white-dot syndrome (MEWDS), neovascularization at ora serrata, operating

microscope burn, optic nerve head pits, photocoagulation, punctuate inner choroidopathy, rubella, sarcoidosis, serpiginous or geographic choroiditis, subretinal fluid drainage, tilted disc syndrome, Taxoplasma retinochoroiditis, tuberculosis, Vogt-Koyanagi-Harada syndrome, diabetic retinopathy, non-diabetic retinopathy, branch vein occlusion, central retinal vein occlusion, retinopathy in premature infants, rubeosis iridis, neovascular glaucoma, periofoveal telangiectasis, sickle cell retinopathy, Eale's disease, retinal vasculitis, Von Hippel Linau disease, radiation retinopathy, retinal cryoinjury, retinitis pigmentosa, retinochoroidal coloboma, corneal neovascularization due to herpes simplex keratitis, corneal ulcers, keratoplasty, pterigya, and trauma.

29. (Currently Amended) The method according to claim ~~28~~1, wherein the ocular neovascularization is choroidal neovascularization.

30. (Currently Amended) A The method according to claim ~~6~~1, wherein the viral vector is administered intraocularly.

31. (Currently Amended) A The method according to claim ~~30~~1, wherein the viral vector is administered subretinally.

32. (Currently Amended) A The method according to claim ~~30~~1, wherein the viral vector is administered intravitreally.

33. (Currently Amended) A The method according to claim 7, wherein the viral vector is a ~~lentiviral vector~~ obtained from a lentivirus.

34. (Cancel) ~~The method of claim 33 wherein the lentiviral vector is administered in an amount effective to provide for expression of endostatin by the individual to result in a concentration of endostatin of up to 1,000,000 ng/ml in the serum of the individual.~~

35. (Cancel) ~~The method of claim 34 wherein the lentiviral vector is administered in an amount effective to provide for expression of endostatin by the individual to result in a concentration of endostatin of at least about 300 ng/ml in the serum of the individual.~~

36. (Cancel) ~~The method of claim 35 wherein endostatin is expressed in the individual in a sufficient amount to result in a concentration of endostatin of about 3000 ng/ml to about 3000 ng/ml in the serum of the individual.~~

37. (Cancel) ~~The method of claim 36, wherein endostatin is expressed in the individual in a sufficient amount to result in a concentration of endostatin of about 300 ng/ml to about 1500 ng/ml in the serum of the individual.~~

38. (Currently Amended) The method of claim 33, wherein the lentiviral vector is obtained from a bovine immunodeficiency ~~viral vector~~ virus.

39. (Original) The method of claim 38, wherein the bovine immunodeficiency viral vector is administered intraocularly.

40. (Currently Amended) The method of claim ~~39~~38, wherein the bovine immunodeficiency viral vector is administered subretinally.

41. (Currently Amended) The method of claim ~~40~~38, wherein the bovine immunodeficiency viral vector is administered intravitreally.

42. (Cancel) ~~The method of claim 6, wherein the increase is inducibly effected by the administration to the individual of a viral vector that can cause the production in the individual of an agent that will induce the expression of the endostatin-encoding nucleic acid.~~

43 (New) The method of claim 7, wherein said viral vector is obtained from an adeno-associated virus.

44. (New) The method of claim 7, wherein said viral vector is obtained from a retrovirus.

45. (New) The method of claim 1, wherein said ocular neovascularization is retinal neovascularization.

46. (New) The method of claim 1, wherein said ocular neovascularization is corneal neovascularization.

47. (New) The method of claim 1, wherein said ocular neovascularization is iris neovascularization.

48. (New) The method of claim 33, wherein the lentiviral vector is administered intraocularly.

49. (New) The method of claim 33, wherein the lentiviral vector is administered subretinally.

50. (New) The method of claim 33, wherein the lentiviral vector is administered intravitreally.